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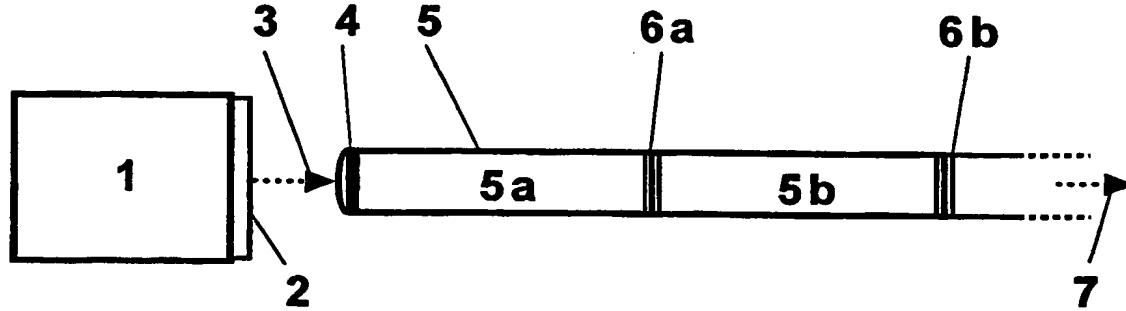
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(54) Title: STABILIZED LASER SOURCE



(57) Abstract: The invention relates to the stabilization of semiconductor laser diode sources as they are extensively used in the field of optical communication. Such lasers are mostly employed as so-called pump laser sources for fiber amplifiers, e.g. Erbium-doped fiber amplifiers, and are designed to provide a narrow-bandwidth optical radiation with a stable power output in a given frequency band. To improve the stability of such laser sources compared to prior art designs, a plurality of "external" cavities is provided. In the commonly employed optical fibers for conducting the laser beam, these cavities may be formed by a plurality of appropriately designed Bragg gratings. However, the cavities may as well be formed by other means reflecting a given amount of the energy back to the laser in a desired frequency band, thus effecting the desired stabilization of the laser's intensity and frequency.

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